



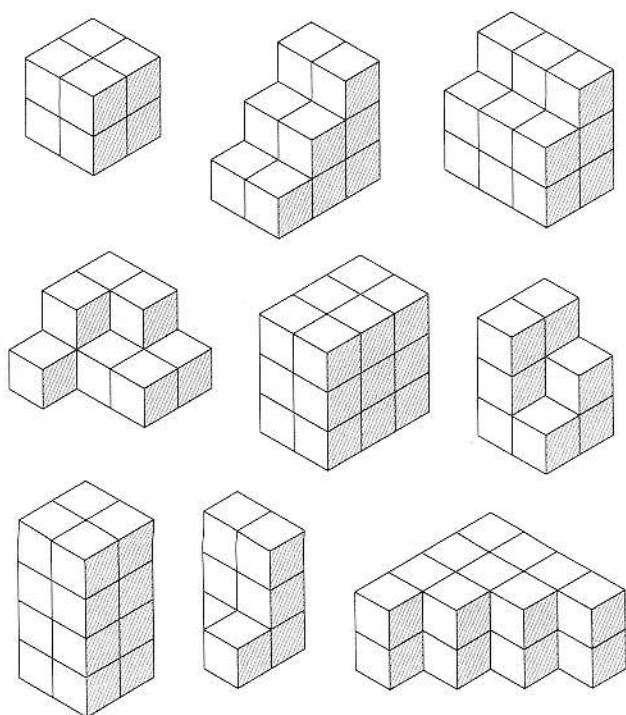
Measurement

Volume of Solids 63

A Counting Cubes

Riddle : What starts with T, ends with T and is full of it?

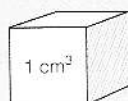
- 1 The answer to this riddle is hidden in the box below. Work out the number of cubes in each solid, then shade the sections which contain these numbers.



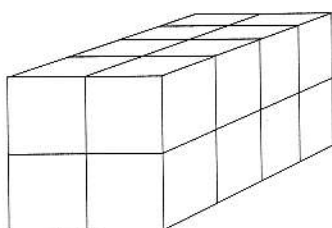
The answer to the riddle is ...

.....

The volume of a box is the amount of 3 dimensional space it can hold. The amount of space is measured in cubes, for instance cubic centimetres. Notation : cm^3



2



A box is 2 cm wide, 2 cm high and 4 cm long.

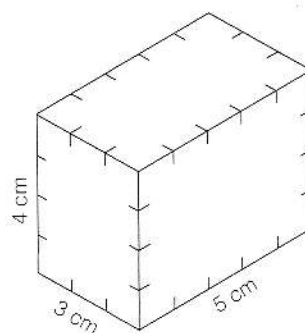
What is its volume?

..... cm^3

B Invisible Cubes

- 1 Calculate the volume of each of these boxes. You may wish to draw lines to show the cubes.

a)

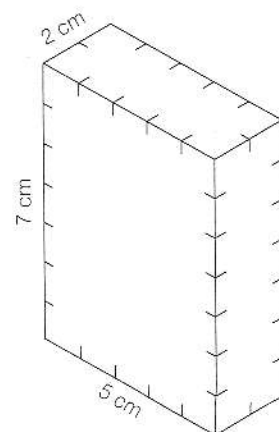


Volume

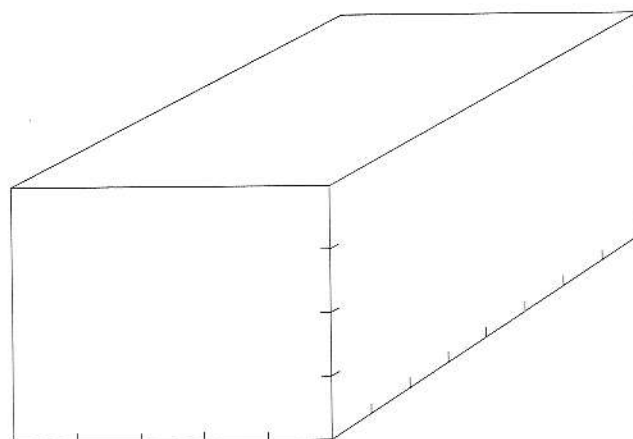
..... cm^3

b) Volume

..... cm^3



- 2 The lounge of a hotel is a rectangular space with a length of 8 metres, a width of 5 metres. The ceiling is 4 metres high. Calculate the volume of this lounge. The unit is cubic metres!

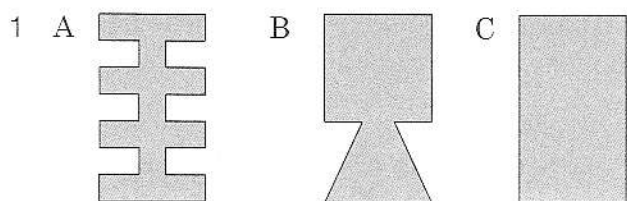


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64 Measuring Shapes



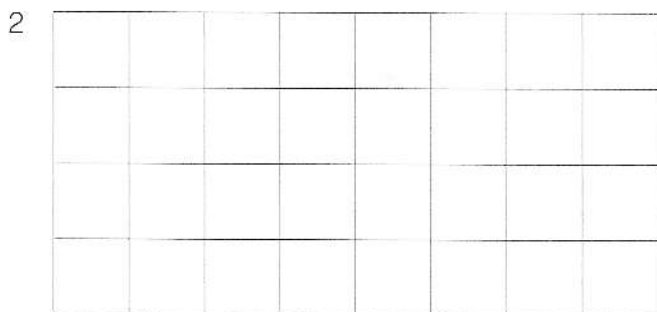
A Flat



a) Which of these shapes has the largest perimeter?

.....

b) Which has the largest area?



a) Draw a square with an area of 9 cm^2 .

b) What is the perimeter of this square?

.....

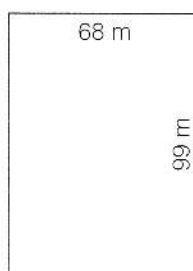
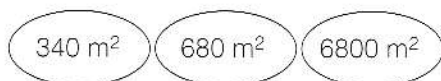
c) Here is a challenge! Draw a square with an area of 2 cm^2 . Measure the perimeter of this square.

.....

.....

3 A rugby field is 68 m wide and 99 m long.

Colour the best estimate for the area of a rugby field.



4 A rectangle has a perimeter of 30 cm. The two longer sides are 9 cm long. How long are the two shorter sides?

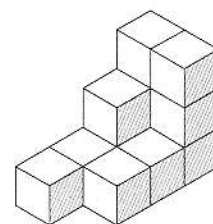


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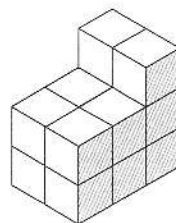
B Bulky

1a) Work out the least number of cubes needed to turn this shape into a cuboid.

..... cubes.



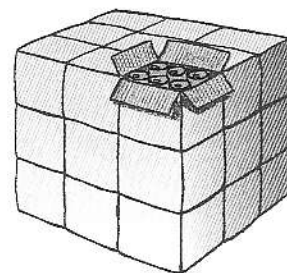
b)



What is the least number of small cubes needed to turn this shape into a cube?

..... cubes.

2 Each box in this stack holds 12 cans of drink (two layers of 6 cans). Each can holds 250 mL.



a) How many litres of drink are in each box?

.....

.....

b) How many cans are in this stack?

.....

.....

3 Colour with red the box with the greatest volume and with blue the box with the smallest volume.

